

#### ABSTRACT OF THE DISCLOSURE

A breathing assistance device having: a turbine for generating flow of pressurised respiratory gas, a duct for carrying pressurised gas to a patient, a mechanism to control gas pressure capable of elaborating a pressure setting for the turbine, the turbine is connected to a speed sensor for acquiring a signal corresponding to the rotation speed of a rotating element of the turbine, and the mechanism of controlling the calculation linked to the speed sensor in order to elaborate using the signal, a pressure setting sending the pressure setting to the turbine. Another aspect of the invention relates to a method for regulating the pressure of a respiratory gas delivered by a turbine to a patient, the method involving elaborating a pressure setting for the turbine, characterised in that the pressure setting is elaborated using a signal representative of the rotation speed of a rotating element of the turbine.